

Tactical Deep Maneuver: Incorporating the Forward Detachment Concept into U. S. Doctrine

**A Monograph
by**

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Armor



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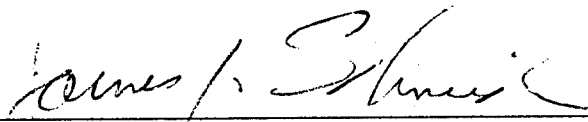
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ABSTRACT

TACTICAL DEEP MANEUVER: Incorporating the Forward Detachment Concept into U. S. Doctrine by MAJ Sean B. MacFarland, USA, 42 pages

This monograph examines the interaction between tactical deep maneuver by forward detachments and non-linear warfare. Recent advances in technology, particularly in highly lethal precision guided munitions, have accelerated the trend toward delinearization. The Soviets developed the forward detachment concept to delay culmination and maintain a high tempo during offensive operations under non-linear conditions. This monograph determines whether U. S. Army deep battle doctrine should also incorporate this concept.

The first part of this investigation examines the historical utility of forward detachments in offensive operations by various nations, to include our own. It also reviews current trends toward non-linear warfare. A comparison of how the Soviet forward detachment concept and American deep battle doctrine, with its reliance primarily on fires, cope with these trends. To determine whether our doctrine should change, a hypothetical U. S. version of the forward detachment, based closely on the Soviet concept, is analyzed, by battlefield operating system, to determine: if it solves the problems, and exploits the opportunities of the non-linear battlefield; if our accepted doctrine is equal to the challenges of tactical deep maneuver; and if the U. S. Army is adequately organized and equipped to conduct forward detachment operations.

This analysis indicates that: historically, forward detachments are necessary when confronting a relatively sophisticated opponent; they are ideally suited to non-linear warfare; our capstone doctrine provides an excellent, if unrealized, framework for tactical deep maneuver; and the U. S. Army is uniquely capable of conducting forward detachment operations. The conclusion is that the U.S. Army should incorporate the forward detachment concept into its doctrine.

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"They have us surrounded again, the poor bastards."

- Tank Commander, U. S. 4th Armored Division ¹

INTRODUCTION:

In the 1960s, Soviet military thinkers perceived technological trends that would lead to increasingly non-linear battlefields. In fact, they came to believe that non-linearity was a necessary condition for survival on a modern battlefield. Their solution to the challenges and opportunities presented by this environment was found in deep maneuver, conducted by "operational maneuver groups" and their tactical cousins, "forward detachments." Since the early 1980s, when western armies first realized the existence and purposes of these formations, military writers have devoted considerable attention to them. Their focus, however, has been exclusively on what such organizations could do to us and, occasionally, on how to defeat them. Given NATO's mission to defend Western Europe from Warsaw Pact aggression, this was entirely logical. But, since the end of the Cold War, the probability of conducting offensive operations has increased dramatically for the U.S. and her NATO allies. Furthermore, the proliferation of certain key military technologies has created conditions favoring the employment of tactical deep maneuver operations in many potential theaters. As a result, it is worthwhile for us to shed our defensive mind-set of the past 45 years and to explore the possibilities of using this offensive technique for our own benefit.

Currently, U. S. doctrine emphasizes deep attack by means of artillery and aviation. Other than the recent phenomenon of air assaults, the only type of deep tactical maneuver existing in our doctrine is the raid. This is not very surprising, given the rich tradition of raiding in American military history. But, raids fail to exploit the full potential of deep maneuver because they tend to be infrequent operations of limited duration and depth. Air assaults are also of limited value due to the scarcity of helicopter lift assets and the intensive planning and preparation

which they require. The purpose of this paper is, therefore, to consider the merits and demerits of incorporating the Russo-Soviet forward detachment concept (FDC) into our own offensive doctrine.

If battlefield trends have truly produced a need for tactical deep maneuver, and if the forward detachment is a portable concept which can be used by non-Russian armies, then it may offer an alternative preferable to our present deep attack doctrine. After examining the FDC's advantages and disadvantages, This monograph will determine if it should become part of our doctrine. To be incorporated, it must offer a clear solution to the problems of a non-linear battlefield, be compatible with current U. S. warfighting doctrine, and be organizationally supportable within the U. S. Army.

"As long as you attack them, they cannot find the time to plan how to attack you."

- Gen. George S. Patton, Jr. ²

BACKGROUND:

Definition: The Forward Detachment Concept (FDC) is defined for the purposes of this monograph as: independent tactical formations conducting maneuver operations up to approximately 35 kilometers deep, to seize and hold key objectives, in support of offensive operations by the main body of forces. The depth of these objectives depend upon several factors to be addressed later in this study. This is essentially the definition set forth by Soviet Colonel F. D. Sverdlov, in his 1986 book, Forward Detachments in Combat. ³

Historical Precedents: Although NATO did not discover its existence until recently, the Forward Detachment has many historic antecedents in Russo-Soviet doctrine and practice. Its most recent incarnation occurred in the 1960s as a response to the advent of non-linear battlefields. This does not necessarily mean that the Russians are the sole practitioners of the FDC, however. Indeed, many

armies seeking to maintain a rapid operational tempo have used formations that were similar in design and intent.

The first forward detachments were employed by early Slavs as long ago as the late 900s. Kievan Rus commanders frequently dispatched strong vanguards that could fight independent actions without immediate support from the main body.⁴ The Czarist Russian army used a forward detachment under N. V. Gurko in the Russo-Turkish War of 1877-8.⁵ More recently, the advent of mechanization and radio communications led Soviet military theorists to discuss "operations in depth" and "daring thrusts" in the 1920s. The Red Army actually implemented these concepts in both Eastern Europe and Manchuria during the Second World War.⁶ The latest version of the Soviet FDC was formulated in the mid-1960s as a response to America's "Flexible Response" doctrine. It was seen as a combat technique that would complicate an opponent's decision to use tactical nuclear weapons because it reduced the mass of potential targets, intermingled forces, and struck deep at nuclear-capable systems.⁷

The Second World War witnessed non-Russian armies employing forward detachments as well. In fact, the Germans used them against the Americans during the Battle of the Bulge to ensure a fast tempo for their offensive. Waffen SS commanders Joachim Peiper and Otto Skorzeny led such formations to seize the Meuse bridges between Liège and Namur.⁸ This had to be done by a *coup de main* because German leaders felt that the rapid capture of these spans was essential to the success of their operation. In their opinion, failure to establish bridgeheads there by the second day would mean that the offensive would have "failed in its major object."⁹ This was a classic use of the FDC.

The American army in WW II occasionally made use of forward detachments, too. A well known example of this was the employment of Combat Command A, 4th Armored Division, which served as a forward detachment for the

XII (US) Corps during the encirclement of Nancy in 1944. In the words of one historian, this "classic deep attack ... scattered German reserves, overran depots, and severed lines of communication while incurring a minimum of friendly casualties." ¹⁰ Of course, American experience with forward detachments did not begin in 1944. The U. S. Army can trace its own FDC lineage all the way back to the Civil War. Distinct from numerous and variably successful cavalry raids, U. S. Grant employed true forward detachments in his Wilderness and Appomattox campaigns to facilitate his advances. During the Wilderness campaign he dispatched Gregg's Cavalry Division to secure the vital road junction at Wilderness Tavern. ¹¹ He used Hancock's II (US) Corps at Spotsylvania Courthouse in the same manner. ¹² Both objectives were deep in Lee's rear. In the Appomattox campaign, Grant sent a reinforced cavalry regiment to capture the High Bridge across the Appomattox River to block Lee's line of retreat. ¹³ These examples of Americans using the FDC clearly indicate, then, that the Russians do not possess sole claim to the employment of forward detachments. In fact, American military tradition over the past 130 years has become strongly imbued with the FDC.

Current Trends: The trend toward using the FDC has not abated since the end of the Second World War. New influences, such as battlefield nuclear weapons and high-precision conventional weapons, have forced modern armies to adopt increasingly non-linear tactics in order to cope with the growing lethality of the battlefield. Moreover, the rate of proliferation of these types of weapons, which has accelerated in the wake of the Cold War, has ensured that this trend will continue.

As was previously stated, the modern Soviet FDC initially stemmed from concerns over the use of tactical nuclear weapons. Such weapons made large concentrations dangerous and would create large contaminated disruptions in NATO defenses. To capitalize on the opportunity presented by these disruptions

and to prevent enemy nuclear strikes against Soviet offensive concentrations, forward detachments would race through the gaps to seize or destroy enemy nuclear delivery systems and disrupt their command and control. ¹⁴ This "anti-nuclear maneuver" technique later became the cornerstone of the Soviet response to NATO's fielding of lethal, high-precision conventional weapons in the 1980s that were capable of conducting Follow-on Forces Attack (FOFA). Under the new scheme, the Soviets completely abandoned their old linear concepts of warfare. New methods of tactical echelonment, combined arms formations at all tactical levels, and multiple, independent tactical subunits would be used to create a non-linear battlefield, thus minimizing vulnerability and maximizing tempo. ¹⁵ Whether or not this idea was widely accepted in the field is difficult to determine. What is clear, however, is that Soviet doctrine writers, if nobody else, recognized the need for a radically different approach.

The end of the Cold War has not signaled a return to linear warfare, however. The probability of fighting on non-linear battlefields is actually growing due to an explosion in the number of regional conflicts, relaxed constraints on armed intervention by major powers in those conflicts, and the proliferation of key technologies throughout the world. These technologies are: tactical nuclear weapons, guided missiles, high-precision conventional weapons, armored fighting vehicles, rotary and fixed wing aircraft, and command, control, communications, and intelligence (C³I) systems. ¹⁶ The resulting improvement in military effectiveness has resulted in greater spatial dimensions of the battlefield and decreased force density thereon. The phenomenon of an increasingly "empty battlefield," coupled with the high mobility of the contending armies, will result in fluid, non-linear warfare, just as the Soviets predicted. ¹⁷ The side that can capitalize on these conditions to achieve a high tempo offense will be the side favored by success in future conflicts.

"The Anglo-Saxon moves between fights, the Russian fights between moves."

-Brigadier Richard Simpkin 18

DEEP TACTICAL MANEUVER DOCTRINES:

Soviet Doctrine: After carefully analyzing both historical and current trends, the Soviets concluded that tactical deep maneuver by forward detachments would be necessary to succeed on future battlefields. But, they still had to determine what forward detachments should look like and how to use them. Using their characteristic dialectical method, the Soviets arrived at answers to both questions. ¹⁹ Although forward detachments can be deployed by Soviet armies (U.S. corps equivalents), the tactical and operational level begins to blur at that level. Consequently, this analysis will concentrate only on the division level formations and below.

Structure: The organization of a forward detachment is identical to that of an advanced guard. Furthermore, it is not a special unit, but is drawn from the organic sub-units of the parent division or, on occasion, regiment. Forward detachments can be formed hastily from units in the first echelon, or more deliberately from the second echelon units. ²⁰ This permits its rapid employment and reconstitution. Forward detachments can be built around an airmobile *desant* battalion equipped with BMD infantry fighting vehicles, but are usually based on reinforced tank or motorized rifle battalions (MRBs). In the most common case, that of an MRB, the forward detachment is ordinarily reinforced by one or two tank companies, a self-propelled artillery battalion, an engineer platoon or company (with any additional specific capabilities as dictated by the situation), an air defense platoon, a chemical reconnaissance squad, and four to sixteen attack helicopters. ²¹ This potent combined arms force is organized into three elements: one or more

Combat Reconnaissance Patrols (CRPs), a Forward Security Element (FSE), and a main body. ²²

Employment: Although forward detachments and advance guards share a common structure, their missions are quite different. One of the leaders in developing the Soviet FDC in the 1960s, I. Vorob'yev, described the difference in this way:

Advance guards are elements of march security with the mission of warning and protecting the main forces against surprise enemy attack, and to prevent enemy reconnaissance penetration. Therefore, upon meeting with enemy security units they attempt to destroy or contain them. Forward detachments, on the other hand, must evade combat through maneuver and, as rapidly as possible, reach their designated objectives. ... Of course, both advance units and forward detachments must always coordinate their operations. ²³

In general, the primary purpose of a forward detachment was best summarized by Sverdlov as:

"seizing and holding important lines (objectives) in the depth of the enemy defense, and ensuring the high tempo and continuous advance of the main forces and favorable conditions for defeating the enemy, with the expenditure of the least forces, resources and time." ²⁴

How a forward detachment is used depends upon the mission, enemy, terrain, time and troops available (METT-T). Of critical importance is the firmness of the defense, as this determines the depth of the mission. The expected depth of these missions are represented in the table below: ²⁵

<u>FORWARD DETACHMENT</u>	<u>MISSION DEPTH (KMs)</u>
<u>UNPREPARED DEFENSE</u>	
DIVISIONAL	REAR OF MBA (30-50)
REGIMENTAL	REAR OF CFA (20-30)
<u>PARTIALLY PREPARED DEFENSE</u>	
DIVISIONAL	REAR OF CFA (20-30)

Figure 1
Soviet Forward Detachment Doctrinal Mission Depths ²⁶

When attacking unprepared defenses, forward detachments start the battle by penetrating the covering force area (CFA) and then try to prevent the enemy's occupation of the main battle area (MBA). When the enemy has partially occupied the MBA, forward detachments are heavily supported by fires, overcome the CFA, and attempt to pre-empt the complete establishment of the MBA. Forward detachments are not normally used against a fully prepared defense until after the MBA has been penetrated. Once the penetration is complete, forward detachments lead the exploitation, during which they maintain forward momentum by keeping the enemy off balance. *Desant* units are often employed in conjunction with the forward detachments to maximize this effect.²⁷ Because forward detachments are self-contained and able to move quickly, they are also used as pursuit forces.²⁸ Additionally, forward detachments can play an important role in deception plans by hiding the direction of the main effort.²⁹ Typical forward detachment objectives are enemy air defense clusters, command and control nodes, nuclear, chemical, and high-precision weapon systems, key terrain, logistics bases, and reserves.³⁰

Tactics: Forward detachments can be employed from within enemy contact or from the march. Like all Soviet formations, they prefer operating from the march.³¹ To maximize flexibility, they are not limited to a specific zone. This allows them to avoid decisive combat short of the objective.³² The Soviets expect the most common form of forward detachment engagement to be the meeting engagement.

Because of the assumed likelihood of a meeting engagement, the forward detachment moves with CRPs forward and on its flanks up to 15 kilometers away from the main body. It also maintains an FSE, consisting of about one third of the force, operating five kilometers forward of the main body, along the main axis of advance. The forward detachment main body normally moves in column at 20-30 kilometers per hour, with the artillery battalion (minus) often traveling at the head of

this element, to insure responsive support for the FSE and its attached artillery battery.³³ A typical meeting engagement by a forward detachment is illustrated in the following figure.

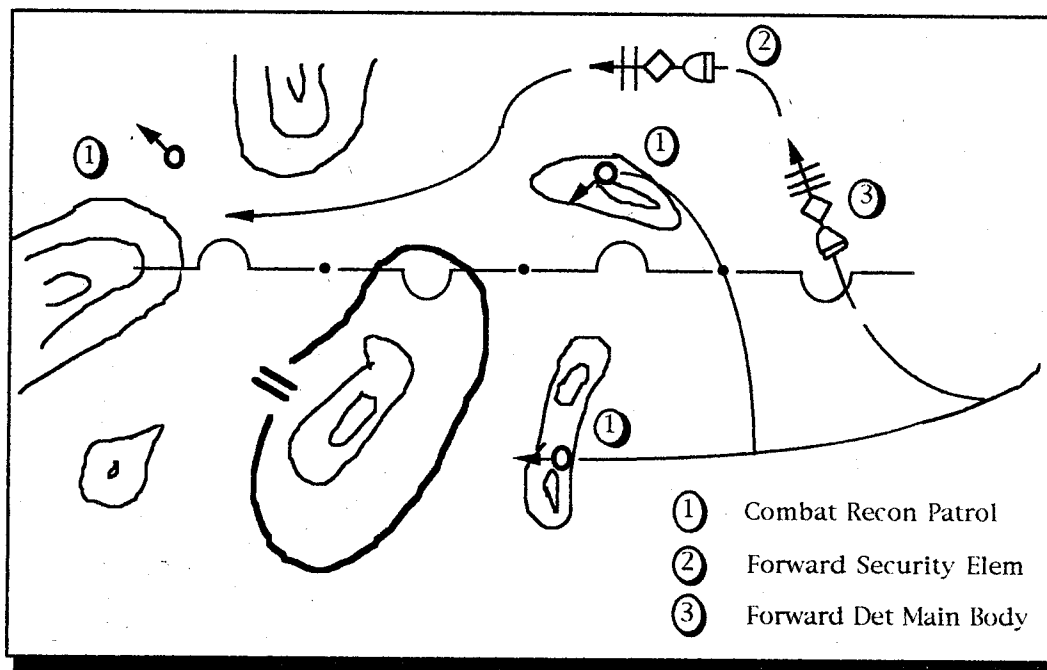


Figure 2
Reinforced MRB Advancing as Forward Detachment³⁴

Notice that because it is a divisional asset, the forward detachment's maneuver is not constrained by an inter-regimental boundary. En route to its objective, the forward detachment avoids prolonged combat, but will destroy any enemy reconnaissance forces it encounters. Once on its objective, the forward detachment will defend it or move on to its next objective until the main body overtakes it. At that point another forward detachment will be constituted.³⁵

It appears from this review that the Soviets achieved a coherent doctrinal response to current battlefield trends. They took the concept of an exploitation force and formalized it into a fixed element of their offensive doctrine. The FDC was refined and harmonized with other types of offensive operations to achieve a synergistic effect. This allowed them to exploit any opportunity at any point in a

battle. Furthermore, it appears that the FDC's organization and tactics were capable of executing missions consistent with its designers' expectations of future battle. It could quickly strike enemy high-precision weapons complexes while reducing the mass required to achieve offensive success, thus limiting the size of potential targets for those weapons.

American Doctrine: Unlike the Soviets, the U. S. Army has not acknowledged an absolute requirement for deep tactical maneuver. Since 1982, the Army's capstone doctrine document, FM 100-5, Operations, has recognized the need for conducting deep attacks, but this concept has not *necessarily* included a ground maneuver element analogous to a forward detachment.³⁶

For the past eleven years, our doctrine has been gradually moving away from a purely defensive posture to one more offensive in nature. Its tenets have included initiative, agility, depth, synchronization, and most recently, versatility. All of these tenets seem to encourage the use of ground maneuver forces in deep operations. Initiative keeps the enemy off balance and accelerates offensive tempo, agility allows us to take advantages of fleeting opportunities, depth makes the enemy's rear part of the battlefield and helps to sustain momentum, synchronization integrates all the elements of combat power, while versatility enables forces to execute unusual and unforeseen missions deep behind enemy lines.³⁷ Furthermore, the latest (1993) version of FM 100-5 states that deep operations are conducted to "set the conditions for decisive future operations." It explains that they hasten the enemy's defeat by depriving him of freedom of action and disrupting the tempo and coherence of his actions. The manual says that this must be accomplished through fires and maneuver.³⁸ This explanation is essentially the same as that found in the 1986 version.³⁹ Thus, the American understanding of deep operations, combined with the U. S. operational tenets, indicates a strong appreciation for deep tactical maneuver.

The American doctrinal belief in the necessity of deep maneuver is not nearly as profound as the Soviet's, however. The 1993 version of FM 100-5, which has attempted to move beyond Cold War requirements, has given deep tactical maneuver a bit more credibility than did its predecessors. But, its pages do not embrace the importance of non-linear operations in mid-to-high intensity conflicts as the Russo-Soviet doctrine does. Consequently, American doctrine does not share the Soviet conclusion that deep tactical maneuver is a *sine qua non* of battlefield success against relatively sophisticated opponents.

Unfortunately, not even this qualified acceptance of deep tactical maneuver is universal at all levels of U. S. doctrine. The farther down the ladder one looks, the more grudging is the acceptance. The September 1989 version of FM 100-15, Corps Operations, acknowledges the possibility of deep maneuver, but says little more than that about it, while it devotes a significant amount of space to the methodology of conducting deep fires.⁴⁰ The 1990 version of FM 71-100, Division Operations, devotes almost a page and a half to the problems of deep maneuver, but only spares one line to explain its potential benefits.⁴¹ In reality, our tactical deep operations consist almost exclusively of attack helicopters and fire support assets, which are only occasionally augmented by raids or air assaults. We do not seem to have appreciated the full significance of our own capstone doctrine, which at least gives us the latitude to explore deep maneuver. Our tactical doctrine fails to adequately consider maneuver's inherent opportunities, preferring instead to obsess over its difficulties.

The four accepted forms of deep tactical maneuver in U.S. offensive doctrine are air assaults, raids, exploitations, and pursuits. Air assaults perform much the same function as Soviet *desant* forces operating as, or with, a forward detachment. They seize critical objectives in the enemy rear to enhance the momentum of the main force.⁴² Raids are designed more to disrupt the enemy by

keeping him off balance, than to directly enhance the main force's offensive tempo by capturing critical objectives. Exploitations and pursuits are intended to maximize the damage inflicted upon the enemy as a result of offensive operations.⁴³ These last three examples are also very close to the Soviet concept of operations. The key difference between our doctrine and Soviet doctrine is that our doctrine considers each of these operations in isolation. In U. S. doctrine, there is no single unifying concept for the various types of deep maneuver operations that is designed to extract the maximum advantage from them.

American doctrine, therefore, remains committed to the concept of deep battle, but not necessarily to deep maneuver. Deep tactical maneuver is perceived as a proposition fraught with difficulties which limit its effectiveness. Consequently, the emphasis on deep maneuver is on exploitations and pursuits, after the battle has been won, and not before.

Doctrinal Comparison: Although the Russians have a long history of using forward detachments to maintain offensive tempo, their current philosophy is based on both recent and current battlefield trends. The non-linear battlefield, which they saw initially as a result of mechanization, then tactical nuclear weapons, and now, high precision conventional weapons, drove them to adopt the FDC, which is essentially an extrapolation of traditional exploitation operations. Other nations, to include our own, have also used forward detachments in the past, beyond the normal exploitation context, to maintain offensive momentum. A survey of our doctrine indicates that we have not, however, become as convinced of the likelihood of non-linear operations as the Russians. Consequently, we do not look upon non-linear operations as a necessity. This has resulted in a general doctrinal neglect of deep tactical maneuver doctrine. Unfortunately, the post-Cold War era has ushered in an era of heightened instability and increased weapons technology proliferation. These two trends will serve to increase the probability of

non-linear battlefields in mid-to-high intensity conflicts. This could cause severe problems for American forces if we are unprepared for combat under such conditions. Since the Russo-Soviet solution seems to be effective, perhaps an American version of the FDC would, too.

"You'uns is like pack mules- we'uns is like race horses. All Old Jackson gave us was a musket, a hundred rounds, and a gum blanket, and he druv us like hell."

- Confederate Prisoner to Union Soldier in the Shenandoah Valley ⁴⁴

AN AMERICAN FORWARD DETACHMENT CONCEPT:

It is apparent from the preceding review of Russo-Soviet and U. S. doctrine that we do not possess a counterpart to the FDC. Therefore, to determine whether we should establish one, we must construct a hypothetical American FDC. To simplify the exercise, it will be based as closely as possible on the Soviet FDC.

The hypothetical American FDC consists of an element of the main force, detached and sent into the depth of the enemy, in order to gain a decisive tactical advantage over him. It operates independently of the main body and may be assigned to seize multiple objectives. It could operate in conjunction with others to form a "cloud" of forward detachments which together would act as an Operational Maneuver Group. ⁴⁵ It will avoid contact until it reaches its objectives, and then it will secure them until relieved, or is sent on a subsequent mission.

By converting the Russo-Soviet organization into U. S. terminology we can arrive at the approximate configuration of a U. S. forward detachment. It will be based on a tank-heavy, balanced, or mech-heavy task force as the situation dictates. It may operate in conjunction with air assault elements. It will be supported by an attached 155mm (SP) FA battalion, and an OPCON attack helicopter company or air cavalry troop. Additional attachments will normally include an engineer company, an NBC reconnaissance section, an augmented S-2 section, and an ADA

platoon equipped with Bradley STINGER Fighting Vehicles (BSFVs) or AVENGERS. These assets would be organized as illustrated in the figure below:

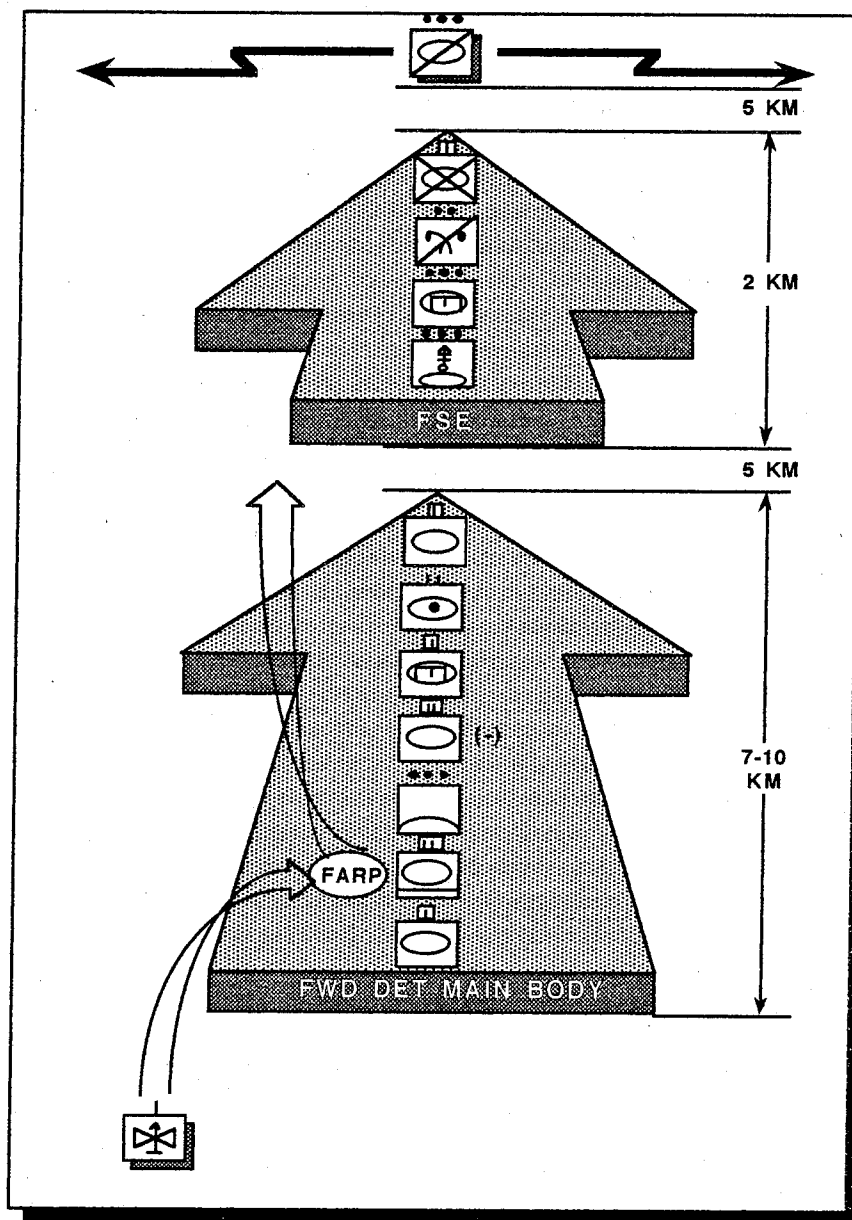


Figure 3
Typical U. S. Forward Detachment

The forward detachment would move with its scout platoon forward, reconnoitering from one to three routes. By doing so, this platoon performs the same basic functions as the Russo-Soviet CRPs. The scouts are followed at a five

kilometer distance by a reinforced company team moving in traveling formation. This element fulfills the role of an FSE. The main body of the reinforced task force would follow, also in traveling formation, five kilometers behind the FSE.

Flank security for the main body is provided primarily by surprise and fires, although the main body should also dispatch patrols up to fifteen kilometers laterally to assist in this effort.⁴⁶ Weather and enemy air defense conditions permitting, aviation can provide crucial early warning far beyond this distance to the forward detachment, and should be used in this capacity as much as possible. The aviation company or troop would bound between temporary forward arming and refueling points (FARPs) established by the assets attached to the task force trains and support slice. All ground elements would travel at 20-30 kilometers per hour. Vehicle intervals would be no more than 50 meters to reduce column length. Because the units depicted in Figure 3 possess a total of over 500 vehicles, the forward detachment commander must leave behind anything not essential to the mission, and use multiple parallel routes whenever possible, to further shorten his column.⁴⁷

Divisional forward detachments would be the most common type formed. Although brigades could generate forward detachments of their own, this would require significant additional artillery support and would severely weaken the rest of the brigade. Smaller, company-team based forward detachments would not be sufficiently robust to penetrate beyond the supporting distance of its artillery. As a result, forward detachments will generally be based on battalion task forces and be formed by division commanders.

The penetration depths of the forward detachment would, of course, be based upon METT-T. A guideline for a divisional forward detachment, as depicted above, however, could be established along the lines of the Russo-Soviet model, but based on their defensive doctrine, rather than ours. Hence, our forward

detachment would penetrate up to 35 kilometers against an enemy division's unprepared defense, which would place the detachment in the rear of the enemy's main defensive area. It would only go as deep as 20 kilometers against a partially prepared defense, or the rear of the enemy security zone. ⁴⁸ Although not all potentially hostile nations use Russo-Soviet defensive doctrine, this assumption provides reasonable planning figures. The forward detachment could be used to disrupt or prevent the completion of the enemy's defenses. Other typical objectives and missions would not differ significantly from those stated in Russo-Soviet doctrine. Against fully prepared defenses, it would not be used until the main defensive area had been penetrated.

The American forward detachment would develop the situation in a meeting engagement, keeping in mind its true objective. Consequently, it would avoid or minimize contact until it reaches its objective area. Once on the objective, it would defend it until relieved. After reconstitution, it would resume its normal position in the division. With this hypothetical American FDC doctrine in hand, we can begin its analysis.

"De l'audace, et encore de l'audace, et toujours de l'audace."

- French Revolutionary George Jacques Danton ⁴⁹

ANALYSIS:

This monograph will turn now to its central question: Should the FDC be incorporated into our doctrine. The methodology is straightforward; it will examine the concept's suitability, acceptability, and feasibility. Suitability is defined for our purposes as solving the problems and exploiting the possibilities of future non-linear battlefields. Acceptability will be determined by the compatibility of the FDC with current U.S. doctrine. Feasibility will be based on how well the U. S. Army heavy division is able to meet the requirements of the concept.

Suitability: This aspect of the analysis will begin by enumerating the problems and opportunities that will exist on future battlefields in terms of the seven battlefield operating systems (BOS). It will then examine how the concept's characteristics pertain to them.

Alvin Toffler, the futurist, has written several books about the impact of a technological revolution in the information field would have on society. The first of these, Future Shock, focused primarily on the problems that this revolution would cause and costs of adapting to it. In his second book, The Third Wave, he took a broader view of the revolution. Being neither a Cassandra nor a Pollyanna, he recognized both the cost of not adapting to change as well as the cost of adapting to it.⁵⁰ In his latest book, War and Anti-War, Toffler has focused on how profoundly the information technology revolution has influenced modern warfare. He talks of the dominance of "software over steel" leading to "de-massification" on the battlefield.⁵¹ This phenomenon has so improved C³I and weapon system accuracy that the Russo-Soviets felt compelled to give the synergistic result of their combination a name: the "reconnaissance-strike complex."⁵² This innovation has, in turn, contributed to the ongoing trend toward non-linear battlefields. As with all changes stemming from "the third wave," this development presents modern armies with both problems and opportunities. The most easily perceived side of any double-edged sword is the problematic side, so the analysis will start there.

Non-Linear Battlefield Problems: Many of the problems of non-linear battle are the results of advances in information age technology. But these advances are not the sole causes. Advances in older technologies from the "second wave," also known as the industrial revolution, continue to contribute to the delinearization process.⁵³ These include areas such as mechanization, aviation, nuclear, and chemical warfare. The major problems stemming from the combination of factors from both "waves" are listed below by BOS.

Maneuver: Non-linear battlefields will result in increased fluidity in tactical situations. This effect is compounded by ever increasing tactical mobility. Reaction and counteraction to maneuver by fast moving armored vehicles and helicopters will place a premium on agility and speed.

Fires: Precision guided munitions (PGMs) will enable the enemy to attack throughout the depth of the battlefield with effects approximating those of tactical nuclear weapons, without incurring the military and political consequences of using that type of weapon. Passive defensive measures against such weapons include: dispersion, which makes mass and maneuver difficult to achieve; and electronic emissions control, which complicates command and control.

Tactical nuclear weapons are devastating both physically and morally. In addition to being highly destructive, lingering contamination can prolong and spread their effects. They tend to be fitted to long range delivery systems and are numerous enough to be used in quantity. Defensive measures against these systems are almost as injurious as the weapons themselves, thus making their mere existence a factor in military operations. For example, the practice of "hugging" the enemy to avoid a strike by preventing sufficient enemy stand-off from the target can result in heavy attrition by conventional weapons. Threatened forces must take the same precautions as are used against PGMs, but must devote additional precautions to avoiding or neutralizing the effects of contamination. It is the contaminative characteristic of nuclear weapons that makes them so demoralizing to troops. It is difficult to know when one is in danger, and this is a well-documented cause of combat exhaustion.⁵⁴ Furthermore, soldiers are aware of the potential of escalation to global thermonuclear war once the nuclear threshold has been crossed. This leads to concern for those at home, which severely degrades morale, too.⁵⁵

Command and Control: The effect of the above mentioned weapons will be battlefield dispersion and a rapidly changing situation. These factors, plus

more sophisticated electronic warfare systems, will hamper a commander's ability to cope with the non-linear battlefield environment.

Intelligence: This dynamic environment is also extremely challenging to intelligence collection and analysis efforts. As a commander's decision cycle becomes ever shorter, the need for critical intelligence which is both accurate and timely will become even more acute. Real time intelligence will become essential to battlefield survival.

Mobility/Counter mobility/Survivability: The scatterable mine family of weapons has an, as yet, unfulfilled potential to greatly impact maneuver warfare. Because their present delivery systems are time consuming and their quantities are still limited, they have not been of revolutionary significance. However, as mines become "smarter," more lethal, more responsive, and more versatile (e.g. anti-helicopter mines), they will force a much greater expenditure of engineer effort on tactical mobility. Despite this, the non-linear nature of the battle will make continuous obstacles virtually impossible to emplace. Furthermore, insuring the survivability of critical assets will be more difficult due to lack of a secure rear area in this type of environment.

Air Defense: Anti-radar, tactical ballistic, and cruise missile proliferation will make high and medium altitude air defense more challenging. The dispersion of forces and the fluidity of the situation will make identification and protection of key locations difficult. The protection of mobile forces will also be a problem. Intermingled forces will complicate identification of friend or foe (IFF), while attack helicopters with increased stand-off capability will cause difficulties for short range air defense systems. Unfortunately, the introduction of stealth technology will hamper the attempt to rectify any of these problems.

Sustainment: Non-linear battlefields will pose unique problems for combat service support efforts. The lack of secure lines of communications and

rear areas, as well as the rapid shifting of supported unit locations present a huge sustainment challenge. Culmination of any maneuver operation would occur rapidly if its sustainment assets were lost. The "draft effect" which follows in the wake of a maneuver force provides a small degree of security to those assets, but they remain vulnerable.⁵⁶ Vertical sustainment is of only limited effectiveness in this environment due to the presence of enemy air defense assets between friendly units and a lack of adequate aerial delivery means.

Non-Linear Battlefield Opportunities: All of the foregoing problems also pose exciting opportunities to an offensively minded force while imposing terrific burdens to the side lacking the initiative. Furthermore, some of the aforementioned breakthroughs in technology have mitigated certain problems in conducting non-linear warfare.

Maneuver: Gaps between enemy forces on non-linear battlefields allow bold commanders to strike deep at decisive points and gain important advantages through maneuver at little cost to themselves. The presence of lethal and fast moving weapons in the enemy's rear would have a disproportionately large impact on his morale.⁵⁷ Gaps in air defense coverage also make air assaults a more viable and effective option. Thus, commanders on non-linear battlefields possess an unprecedented ability to conduct decisive maneuver.

Fires: Long range rocket and missile indirect fire systems allow heavy fire support across large segments of the battlefield with relatively few launchers. Additionally, the high mobility and rapid fire capability of these weapons are ideally suited to high tempo maneuver warfare. Furthermore, increased accuracy, digitization, and cueing from remote sensors will make artillery even more lethal, thus reducing the need for massing weapons and stockpiling ammunition. This will reduce their vulnerability and logistics tail, while increasing their responsiveness

and lethality. These characteristics are essential in a dynamic, non-linear environment.

Battle Command: Digitized communications networks are improving situational awareness and efficiency at all echelons. This, in turn will reduce the signature, and hence, the vulnerability of C² nodes and links. Interconnectivity between C² systems is resulting in vast improvements in both unity of effort and economy of force. This permits greater flexibility in committing forces to deep maneuver.

Intelligence: Airborne and space-based sensor platforms will continue to improve their resolution and responsiveness. Through direct downlinks, these systems can provide commanders with more accurate and more timely intelligence than ever before, anywhere on a battlefield.

Mobility, Countermobility, and Survivability: Mobility in non-linear operations will be enhanced by seizing important crossings before the enemy can react. Survivability of friendly units will be improved by maneuver forces striking at lightly defended, though critical, enemy combat multipliers before they can be employed.

Air Defense: Fast moving formations, protected by shoot-on-the-move air defense systems like the current AVENGER, will be the basis of improved air defense protection.

Sustainment: General William Tecumseh Sherman once pointed out that living off enemy supplies pays a double dividend by supplying your needs while depriving the enemy of his.⁵⁸ Non-linear situations provide the opportunity to do just this, particularly with respect to fuel and subsistence items.

Forward Detachments as a Solution: To determine whether the forward detachment answers the forgoing considerations, this monograph will

examine how the FDC addresses the challenges and opportunities arising in each of the above listed battlefield operating systems:

Maneuver: The FDC exploits the benefits of maneuver to its maximum extent possible.⁵⁹ Essentially, it maintains offensive tempo by delaying culmination. It weakens enemy defenses by disrupting their continuity, it captures key terrain necessary to further progress, and it reduces the enemy's capacity to interfere with friendly operations either through the commitment of his reserves, or by launching deep attacks of his own.

Deep tactical maneuver "creates a stronger, wider, and more lasting effect" than fires alone.⁶⁰ Maneuver forces are best able to deny terrain, complete a target's destruction, obtain accurate battle damages assessment, and inflict moral damage upon the enemy. In other words, "they *require* an enemy commander's attention."⁶¹ The forward detachment permits operations in greater depth because of its self-contained, combined arms nature.

It can also incorporate an air assault. This permits the rapid seizure of a deep objective if it is suitable for capture by light forces. The enemy will be less likely to prevent such an objective being captured than if it was attacked overland by a mechanized forward detachment. Of course, the force must be capable of holding that objective until relieved. Air assault forces can be used to disperse and attack small soft targets, to spread fear and tie down enemy forces, or provide deep real-time intelligence. When an air assault is used in conjunction with a mechanized forward detachment, the probability of success of both formations is enhanced. Enemy reaction forces may be split, blocked, or bypassed by the combined operations of vertically and horizontally inserted forward detachments. Most importantly, successful forward detachment operations provide a bridge to success at the operational level. Forward detachment missions can and should facilitate the

commitment of an Operational Maneuver Group to operational depths beyond 50 kilometers. ⁶²

A forward detachment captures key terrain vital to maintaining the tempo of the main effort. The detachment's heavy, self contained structure enables it to capture multiple objectives which may be well defended. It also enhances tempo through reconnaissance-pull, allowing the main body to follow the path of least resistance, which could unhinge enemy defenses. ⁶³ It disperses enemy defensive efforts by tying down forces in his rear and deceiving other forces. It also sows confusion and fear in enemy rear. All of the FDC's characteristics also serve to greatly complicate the enemy's planning process, forcing him to adopt sub-optimal operations in his own rear in order to cope with real or potential deep tactical maneuver forces. The result of this degradation in sustainment, fire support, and C³I will surely be felt by the forces in the close battle. ⁶⁴ Because it is so flexible, it permits the rapid commitment of deep tactical maneuver forces at any point in a battle to prevent the formation of coherent enemy defenses in fluid situations. It also limits the utility of tactical nuclear weapons and high precision conventional weapons by dispersing and intermingling friendly forces and/or breaking up enemy recce-strike complexes. By not requiring a return to friendly lines, problems associated with a raid, such as ambushes and a rearward passage of lines are avoided. Furthermore, the forward detachment can be given missions that support the division's deception plan, thus improving the odds for success in the close fight.

By tying down enemy forces, which must react to its presence, the forward detachment reduces the threat to friendly rear area forces. The enemy commander will have fewer units available to send into our rear, while coordinating the efforts of those he does send will be greatly complicated.

Fires: The results of fires are enhanced by the actions of ground forces. Forward detachments can increase the effectiveness of the deep fight by combining the strengths of both fire and maneuver against deep targets. The FDC capitalizes on the deep artillery umbrella provided by new, long range, high-precision conventional weapons, such as MLRS and ATACMS, as well as by moving short range artillery and target acquisition radars to deep locations, where they too can contribute to the deep fight. Moreover, it allows indirect deep fires of all types to concentrate on the targets that are most vulnerable to artillery fire, while destroying enemy counterbattery systems. It also reduces the risk to aerial deep attack systems by the suppression of enemy air defenses (SEAD). Finally, it can exploit the disruptive effects of deep fires by completing the destruction of targets before they can be reorganized or withdrawn.

In addition to enhancing our own deep fires, forward detachments also reduce the threat of enemy deep fires to friendly forces. This is accomplished by attacking enemy PGM and tactical nuclear weapon complexes. Its attached NBC reconnaissance element will limit the effects of lingering contamination to the detachment and any following units.

The threat of fires to the forward detachment itself is minimal. The use of mobile, mechanized forces will ensure a higher chance of survival for the detachment when they are used. The fact that the detachment is operating in depth will probably be its greatest protection against any mass destruction weapons, since the enemy will be undoubtedly reluctant to use them in his own rear. Of course, if the detachment attacks their delivery systems, they would present an even smaller threat.

Battle Command: Use of the FDC exploits the United States' advantage in the information technology field. Airborne and space based communications systems along with digitized communications networks allow

American commanders greater range and agility than any potential opponent. Systems such as J-STARS can track the detachment's progress while reporting enemy countermoves directly to both the division and forward detachment commanders. GPS can simplify maneuver over challenging terrain or areas that battle scarring may have significantly altered. TACSAT can give the forward detachment secure communication at unlimited distances.

Intelligence: Since it travels with its own security, the enemy situation need not be completely known. Indeed, changes in the enemy's disposition in reaction to the forward detachment can be counteracted by the detachment commander based on his own reconnaissance. The forward detachment, in turn, can provide valuable real time intelligence to its parent formation. As it seeks to avoid contact en route to its objective, the forward detachment makes maximum use of "reconnaissance pull." The detachment can "determine routes suitable for maneuver, determine enemy strengths and vulnerabilities, and 'pull' the main attacking body along the path of least resistance." ⁶⁵ The addition of an NBC reconnaissance section will enhance the forward detachment's ability to accomplish this aspect of its mission.

Mobility, Countermobility, Survivability: The FDC exploits the possibilities of FASCAM more fully by using them for flank protection. Furthermore, by moving FASCAM delivery systems like the VOLCANO and 155mm artillery deep into the enemy's rear these types of obstacles can be made more disruptive, particularly when overwatched by direct fires. It also allows the capture of key crossings, and prevents the establishment of enemy obstacle belts, precluding the need for costly and time consuming breaching and bridging operations.

Air Defense: A forward detachment can play an important role in SEAD by attacking air defense systems from the ground, where they are most

vulnerable. Meanwhile, the enemy will have greater difficulty in attacking friendly forces because of the possible disruption of forward airfields and C³I nodes, and the difficulty inherent in directing CAS against intermingled forces. Looking at the other side of the air defense coin, the FDC pays dividends too. As a mechanized ground force, it is not dependent upon aircraft to transport its combat elements to the objective. This eliminates the need for a thorough SEAD program preceding the forward detachment's commitment.

Sustainment: One of the most important benefits of the FDC is that it allows an advancing force to retain the initiative with the commitment of a relatively small part of the total force. It is more likely that a division can keep a single advancing task force sustained while the remainder of the force is compelled to halt for logistic reasons, such as overtaxed lines of communication or a dearth of supplies. The detachment can reap benefits for the division on a scale disproportionate to its relatively small size. Thus, culmination of the overall attack can be delayed. Occasionally, a forward detachment can postpone its own culmination by using captured supplies if it is alert to such opportunities.⁶⁶

Additional positive aspects of the FDC include its reduced reliance on helicopters over traditional air assaults, if none is planned in conjunction with the deep maneuver. This would free them for less hazardous and equally important sustainment functions. It also reduces casualties by weakening enemy resistance in the close fight. Finally, its standard task force basis would permit rapid reconstitution of depleted forward detachments.

Suitability Conclusion: A commander wishing to employ a forward detachment must be aware of its challenges and risks. But clearly, the FDC provides many benefits to its employer. Its salient characteristic is that it allows a force to delay its culminating point and to maintain its tempo. It does this by unbalancing the enemy with a relatively small force which is more easily

sustained than the entire force in a general attack. In addition, the main force makes easier progress against a weaker enemy. In so doing, the forward detachment solves many, if not all, of the problems of the future non-linear battlefield while fully exploiting its opportunities. The FDC is, therefore, suitable for incorporation into U. S. doctrine.

Acceptability: Although the FDC is a suitable addition to the body of our doctrine, it will be of little use if that body rejects the transplant. Our doctrinal mind-set must permit us to accept both the concept's guiding principles and its inherent risks for it to be judged in keeping with the American way of war. Since a doctrine must be "under the skin" of an army to be effective, the FDC must be aligned with these subdermal feelings to be successfully integrated. ⁶⁷ Consequently, the Army's accepted doctrine must be "healthy" enough to meet the demands of incorporating the FDC.

Doctrinal Analysis: The demands of deep tactical maneuver are severe indeed. It is for this reason that only the most daring armies in history have employed such bold tactics. Asking if our doctrine is equal to the demands of the FDC is tantamount to discovering whether we belong to an army that is among history's elite. With this in mind, this monograph will analyze the compatibility of our doctrine and that of the FDC.

What are the specific doctrinal requirements of deep tactical maneuver? The FDC requires independent commanders who take responsibility, and an aggressive mindset that relentlessly takes the battle to the enemy. It requires a willingness to attack deep into the enemy tactical rear. It calls for units that can rapidly react to a fluid situation, and adapt itself to new missions. Finally, it requires a profound understanding of the complexities and the power inherent in bold maneuver. Obviously, to satisfy these demands, a doctrine must be bold and aggressive.

The current U. S. doctrine is an extension of the 1982 AirLand Battle doctrine, which was so successful in the 1991 Persian Gulf War. That war proved that our doctrine was both effective and "under the army's skin." Interestingly, General Donn Starry, the originator of this doctrine, was strongly influenced by Toffler's book, The Third Wave.⁶⁸ Its tenets are initiative, depth, agility, and synchronization. In the latest (1993) version of U. S. doctrine, versatility was added to these tenets.⁶⁹ The concept of depth provides the basis of our deep battle doctrine. Furthermore, maneuver is seen as one of a quartet of elements composing combat power. This would seem to provide a basis for compatibility between the FDC and our doctrine. The more detailed examination which follows will determine whether these aspects of American doctrine actually satisfy the requirements of the FDC.

A forward detachment commander must be able to react to rapid changes in the situation. He must be able to recognize opportunities and exploit them. He must avoid enemy strengths en route to his objective. His mission is to disrupt enemy defensive preparations, thus denying the enemy the opportunity to regain his balance.

These requirements are satisfied by the first U. S. doctrinal tenet, initiative. Initiative has two meanings: personal and battlefield; both are important. FM 100-5 says that personal initiative "implies an offensive spirit." Commanders must "seize or retain independence of action by making decisions and acting more quickly than the enemy and by keeping him off balance." Once attained, it must be preserved by subordinates who "act independently, ... they must exploit successes boldly ... to expedite the overall mission. They will take risks and the command must support them." The necessary traits for this doctrinal tenet are; "improvisation, initiative and aggressiveness-the traits that have historically distinguished the American soldier."⁷⁰ Battlefield initiative refers to the ability to "force the enemy to

conform" to your operations and the retention of freedom of action. ⁷¹ It would seem, then, that the FDC requirement for personal initiative and its objective of gaining or denying battlefield initiative to the enemy is well within the scope of U.S. doctrine.

The FDC requires that forward detachments be capable of operating at significant distances from the main body of forces. Through the use of ground maneuver, it maintains or increases the tempo of offensive operations. ⁷² It does this by seizing objectives deep in the enemy rear that are critical to sustaining offensive momentum or which limit his effectiveness.

U. S. doctrine says that depth is essential to preserving momentum in the attack. Deep battle is waged to "delay, disrupt, or destroy the enemy's uncommitted forces and isolate his committed forces so that they may be destroyed." ⁷³ And, as was stated in the background portion of this monograph, U. S. doctrine has held for over a decade that deep operations are conducted to "set the conditions for decisive future operations." It also says that maneuver is used to hasten the enemy's defeat by depriving him of freedom of action and disrupting the tempo and coherence of his actions. ⁷⁴ Clearly, then, our concept of deep attack is sufficiently broad to include a deep maneuver element.

Sverdlov said in his book, Forward Detachments in Combat, that the FDC demands a high degree of flexibility of both commanders and organizations. ⁷⁵ This is because a forward detachment must find the path of least resistance and move along it rapidly. A high degree of flexibility is necessary to avoid enemy contact and reactions prior to seizing the detachment objective.

The U. S. doctrinal tenet of agility requires both "flexible organizations and flexible leaders." These leaders must "avoid enemy strengths and attack enemy vulnerabilities." "This must be done repeatedly to upset enemy operations. This will lead to ineffective, uncoordinated, and piecemeal enemy responses." ⁷⁶ These

words might have come directly from Sverdlov's book. The fact that they are, in fact, directly from FM 100-5 reflects the strong trait of American ingenuity that makes the FDC so compatible with this aspect of our doctrine.

A forward detachment must work in cooperation with the main body, its advance guard, and other security detachments. Also, it must be able to enhance the effect of deep fires by its maneuver. Finally, the forward detachment commander must be able to take maximum advantage of the combined arms at his disposal in order to accomplish his demanding missions.⁷⁷

The U. S. Army calls the ability to "arrange activities in time and space," synchronization. In fact, the most recent version of FM 100-5 specifically notes that in the attack, supporting fires must be synchronized with maneuver. Synchronization is not limited to fires and maneuver, however. It extends to all battlefield operating systems. The effect of this coordination is "the maximum use of every resource to make the greatest contribution to success."⁷⁸ This doctrinal tenet seems to have anticipated the complexity of forward detachment operations

The FDC requires units without special training, equipment, or organization to undertake deep tactical maneuver missions with minimal advance warning.⁷⁹ This enables the division commander to take advantage of fleeting opportunities that would disappear while waiting a particular unit to move to the correct position.⁸⁰ It also allows the division to form more than one forward detachment, or to more easily reconstitute one which is no longer effective.⁸¹

Versatility was recently added to the list of tenets in recognition of the necessity of doing more with fewer forces in the post Cold War era. At the tactical level, this characteristic translates to the ability "to adapt to different missions and tasks."⁸² Such a capability is critical to the successful implementation of the forward detachment concept. Windows of opportunity for its employment can be very brief as the enemy moves to plug gaps in his defenses. Consequently, the

division commander must have versatile units near those gaps which he can call upon to assume the unusual role of forward detachment. By including the tenet of versatility in the latest version of our doctrine, it and the FDC have become more compatible than ever before.

The most obvious, but most important, element of the FDC is its reliance on maneuver theory to solve the problems of the future battlefield.⁸³ A commander must see maneuver as an important tool of warfare to be willing to risk a significant portion of his force on a maneuver as risky as a deep attack. He must also know how and when to conduct such an operation. Thus, he requires both skill and confidence in the art of maneuver warfare. It is evident, then, that a full understanding of maneuver is vital to any army that undertakes to employ a forward detachment.

Maneuver is recognized in the U. S. Army as one of the four elements of combat power, along with firepower, protection, and leadership. Our doctrine states that at the tactical level of war, it helps to sustain the initiative, exploit success, preserve freedom of action, and reduce vulnerability. It relies on skillful movement along indirect approaches. Its effect on the enemy makes it what makes it an element of combat power.⁸⁴ It keeps the enemy off balance and protects the force. FM 100-5 recognizes that the positional advantages to be gained by ground maneuver and the staying power of ground maneuver units are unique and irreplaceable. It states that fires and aviation lack "the permanence of ground forces." The manual goes on to say that maneuver provides the means of achieving "surprise, psychological shock, physical momentum, massed effects, and moral dominance."⁸⁵ This understanding of maneuver is ideally suited to the FDC. Because maneuver has become an ingrained part of our doctrine, particularly over the last decade, it is clear that the U. S. doctrine is compatible with the demands of deep tactical maneuver.

Acceptability Conclusion: From the foregoing analysis it is clear that the U. S. Army's doctrine meets the challenges of the FDC head-on and fully satisfies its demands. The tenets of agility, depth, initiative, and versatility all provide the essential underpinnings for the audacious and flexible mind set it requires. The concept of deep battle establishes the necessary framework for deep tactical maneuver to occur within. The understanding of maneuver as a vital element of combat power permits the employment of forward detachments as a method of achieving battlefield success. One can conclude, therefore, that the U.S. Army can dare to consider the FDC doctrinally acceptable.

Feasibility: Having established that we should incorporate the FDC from a purely theoretical standpoint, it is necessary to turn now to the question of whether this decision is practical. That means the FDC must be within the scope of U. S. Army capabilities and be supportable if it is to be incorporated into our doctrine. The final aspect of this analysis will do just that by weighing some of the most onerous requirements of the FDC against U. S. Army current and projected near-term capabilities.

Forward Detachment Requirements: The maneuver BOS depends upon all six of the remaining operating systems, and deep tactical maneuver places a unique set of requirements on all of them. Hence, the requirements will be analyzed with respect to each system.

Maneuver: The forward detachment moves fast to enhance its security. As a result, it normally moves on roads in traveling formation. However, the detachment must also be able to maneuver across any type of terrain against strong enemy forces of various compositions.

A significant problem with the forward detachment is just getting into the enemy's rear. This can be very difficult against an opponent in close contact fighting with modern weapons and tactics. If the enemy does not offer an

opportunity to exploit, it may require the creation of an opportunity. Thus, both forward detachments and their parent units must be capable of rapid maneuver and possess significant combat power.

A final, albeit prosaic, maneuver consideration is training space. To effectively train units to conduct forward detachment operations requires a great deal of room.

Fire Support: This will be a difficult challenge because the distance and communications problems extant on a non-linear battlefield will be magnified by conducting deep tactical maneuver. Few systems have the necessary range to support the forward detachment. Furthermore, the movement of the detachment will make it difficult for fire support assets to avoid placing friendly fire on it, thus slowing the process of clearing fires. Electronic warfare (EW) interference might also add to the difficulty in calling for fire. Managing fire support priorities between the forward detachment and the main body will be a challenge, too. Lastly, the loss of an FA battalion to the forward detachment will weaken somebody's fire support somewhere else.

Because the forward detachment will be operating far in front of the main force of its parent division, long range and/or mobile fire support is necessary to insure its adequate coverage. This can be supplied either from within the forward detachment or from external sources. It is important because it helps the detachment break or avoid unwanted contact prior to its objective and gives it additional combat power to seize its objective. Since mobile operations frequently occur where mechanized forces are involved, the fire support must be lethal against armor to be effective. Because of the fluidity of the situation during forward detachment operations, that fire support must be highly responsive to changes in mission and priorities. Any fire support systems that move with the forward detachment must possess equivalent mobility, be sufficiently survivable to

withstand limited counterfire and small arms fire, and must not require an excessively large logistics tail to avoid interfering with the detachments maneuverability.

Battle Command C³I will be a complex undertaking for a deep maneuver force even under the best of conditions. Intervening distance and terrain will challenge the higher commander's ability to maintain adequate communications to synchronize the close and deep fights, and the forward detachment's ability to obtain support and report. Enemy EW could make this even more difficult. ⁸⁶ Consequently, understanding the commander's intent is particularly vital. ⁸⁷ Commanders of forward detachments must be men of great initiative, and their division commander must be a skilled practitioner of *auftragstaktik*. ⁸⁸ Probably the biggest problems with forward detachments will occur prior to its commitment. Some of the questions a commander must answer in an uncertain environment are: the size of the detachment, its composition, its support, the proper depth of its mission, the timing of its commitment, the distance between it and the main body, the proper command and control technique, the appropriate mission and objectives to support the overall intent. ⁸⁹ If either the forward detachment or main effort is defeated, then the forward detachment may have to return to friendly lines, in the same manner as a raid, with all of the attendant risks in such a maneuver. This would be aggravated by the fact that such a contingency operation may be hampered by a lack of prior coordination between passing and passed units due to a lack of time and the forward detachment's isolation.

Isolation will also create a leadership challenge for the forward detachment commander. His soldiers must be confident that they will not be abandoned in the enemy rear. ⁹⁰ Such fears must not be allowed to adversely affect motivation or initiative, for without these qualities, a forward detachment's usefulness is severely limited.

Again, the depth and isolation of the forward detachment imposes a long range requirement on its support. Communications links must possess sufficient range to allow the detachment to operate at depth while retaining the capability to pass critical information higher and to receive the same. Obviously, the communication links must be secure as well as resistant to electronic countermeasures. Forward detachment leaders must be resourceful and independent to react to rapidly fluctuating situations, while their immediate superiors must be willing to allow maximum flexibility to the commander on the scene.

Intelligence: Of critical importance is the intelligence flow in both directions. Intelligence systems must be able to look deep into the enemy rear to discern opportunities and threats to the forward detachment under all battlefield and environmental conditions. Enemy EW could make this difficult. These systems must also be able to pass such intelligence to both the detachment and division commanders in sufficient time for them to react to it accordingly.

Mobility/Counter mobility/Survivability: A forward detachment has only limited engineer capabilities of its own. A determined defense of the objective which includes significant obstacles could delay or defeat the detachment. Furthermore, defeat in the enemy's rear can easily lead to the destruction of the entire force. Consequently, a forward detachment operating deep behind enemy lines needs mobility support. This support must be able to keep pace with the rest of the detachment. It should be able to deal with a wide range of obstacles. The detachment also needs a limited counter mobility capability to enable it to guard its flanks and to defend itself once it has seized its objective. It must also be able to construct a very limited number of survivability positions on the objective. Because of the importance of mobility to a forward detachment's success, this requirement is of paramount importance.

Air Defense: Deep, mobile forces will frequently be outside of friendly high to medium altitude air defense (HIMAD) protection. Therefore, protection against enemy aircraft must be both mobile and survivable. It should be particularly effective against attack helicopter mission profiles as attack helicopter units are ideal for use as a rear area reaction force. Some capability against enemy fixed-wing close air support is also necessary to avoid destruction once on the objective, if air superiority is not assured. It must also provide protection for friendly helicopters operating in support of, or in conjunction with the detachment, against enemy fixed wing threats. Ideally, such an air defense system would be capable of providing coverage while on the move and be survivable against artillery and small caliber weapons.

Sustainment: Combat service support must be able to keep pace with the forward detachment. The primary concerns will be fueling, electronics repair, subsistence replenishment, and medevac.⁹¹ Ammunition consumption is often less in the attack, but should the enemy counterattack with determination on the objective, this too could become a problem. Modern land combat systems such as the M1A1 and aviation systems like the AH-64 consume large quantities of bulk fuel. Consequently, highly mobile, high capacity fuelers with high flow rate pumps are essential to deep maneuver. Treatment and evacuation of casualties also present problems to any isolated unit. These problems are multiplied when the mission of that unit requires it to move rapidly, continuously, and away from other friendly units. The CSS assets accompanying the forward detachment must possess a minimum level of survivability against light threats, and it must be small. A large CSS tail would be vulnerable and slow the column. Furthermore, size begets size; a large tail would require supporters to support the supporters, and so on. This would rob the forward detachment of its flexibility and agility.

Efficiency of resupply and medevac will strongly impact on soldier morale in the detachment. Adequate provisions for self-sustainment in both areas are critical. The ability of helicopters or C-130's to conduct sustainment operations will be determined by the air defense threat and the scarcity of these assets. If the forward detachment is unsuccessful in its SEAD mission, it can expect little support in either. Fuel consumption by a mechanized task force will be difficult to support by air because of the quantities involved. Unfortunately, U. S. armored vehicles are not configured to carry external auxiliary fuel cells. This fact will necessitate the assignment of additional HEMMT fuel trucks to the detachment, thus reducing other units' tactical refueling capability.

Divisional Capabilities: The basic building block of the division, the heavy battalion, is ideally suited to conducting forward detachment operations. With ten such organizations in the division, plus a large armored cavalry squadron, its commander can afford to dispatch one deep, and still retain three robust maneuver brigades.⁹² Furthermore, upon recovering the forward detachment, the division is capable of reconstituting a battalion sized element for future operations.

The American practice of "task organizing" is also ideally suited to the FDC. For the most part, the battalion selected to conduct the forward detachment mission would be simply moving with its normal support "slice." The requirement for additional, non-habitual support elements would thus be minimized.

Maneuver: DESERT STORM demonstrated the overwhelming superiority of the M1A1 Abrams, the M2/3 Bradley Fighting Vehicle, the AH-64 Apache, and the UH-60 Blackhawk on a modern battlefield. All of these systems will remain in the U. S. Army's inventory for some time. Incremental improvements in them will continue to insure they remain the world's best. These systems give the division commander the necessary firepower, agility, and protection to conduct deep tactical maneuver.

On a less positive note, training for forward detachment operations will present a problem for CONUS based divisions that is not easily solved. Some training areas like Yakima, WA and Fort Bliss, TX are large enough, but most are not. This situation can be mitigated, however, by some creativity at home station and co-use arrangements of the larger training areas.

Fire Support: The recent addition of MLRS battalions to division artillery and the fielding of Copperhead rounds have given divisions much greater depth, responsiveness, volume, and lethality. The MLRS battalion is of particular significance because its tremendous firepower is necessary to compensate for the loss of one of the division's three 155 mm battalions during forward detachment operations. Fire support throughout the division will soon be better coordinated with the replacement of TACFIRE with the Advanced Field Artillery Tactical Data System (AFATDS).⁹³ Reviews are also underway to reduce the logistical overhead of field artillery systems by further improving lethality and accuracy, as they now consume 85% of all ammunition tonnage.⁹⁴ These innovations will soon be joined by others, such as the extended range MLRS, the agile and responsive M109A6 PALADIN self-propelled howitzer, the brilliant anti-tank (BAT) submunition that is to be carried by the tri-service standoff attack missile (TSSAM), the search and destroy armor (SADARM) submunition,⁹⁵ and the 120 mm mortar.

Battle Command Various new communications systems have recently been fielded which will enhance signal reliability, range, and security. These include, Tactical Satellite (TACSAT) radios, Single Channel Ground-Air Radio System (SINCGARS), and Mobile Subscriber Equipment (MSE). Command and control was greatly enhanced by the Global Positioning System (GPS) and, to a lesser extent, the Maneuver Control System (MCS). These systems are in the process of being integrated to achieve a synergistic effect between them.⁹⁶ In the near future, the Inter-Vehicle Information System (IVIS)

will link combat systems together in an efficient digital communications network.⁹⁷ Technological initiatives in fratricide prevention are also underway. This is a particularly important consideration for any force which must operate beyond friendly lines.⁹⁸

Intelligence: Reconnaissance, intelligence, surveillance, and target acquisition (RISTA) capabilities have recently improved. The acquisition of the OH-58D, AN/TPQ 36/37 Firefinder radars, long range surveillance detachments (LRSDs), coupled with a more robust divisional cavalry squadron, have improved a division commander's ability to maintain situational awareness on a fluid battlefield. The RAH-66 Comanche will further enhance the squadron's reconnaissance capability as we enter the next century.⁹⁹ Additionally, tactical high mobility terminals (THMTs) will give divisions direct access to satellite imagery. J-STARS will also be directly downlinked to divisions through ground station modules (GSMs), providing both synthetic aperture radar and moving target indicators on a real time basis to divisions anywhere on the battlefield. These modules will also be able to receive live unmanned aerial vehicle (UAV) video.¹⁰⁰

Mobility/Counter mobility/Survivability: The U. S. Army has reorganized its engineer forces and is now equipping them to conduct operations on non-linear battlefields.¹⁰¹ These units are offensively oriented (80% mobility, 20% counter mobility).¹⁰² Because each division now has nine organic combat engineer companies, it can afford to attach one to a forward detachment. This would have been very difficult to do prior to the recent restructuring of combat engineer units. New equipment, like the highly mobile M-9 armored combat earthmover, the mine clearing line charge (MICLIC), and mine delivery systems like the VOLCANO, have made these units very capable. Other systems, like the combat mobility vehicle and advanced bridging assets, will soon add to their

effectiveness.¹⁰³ Furthermore, the fielding of mine rakes, plows, and rollers have greatly improved maneuver units' organic mobility capabilities.

Air Defense: Air defense is becoming more mobile and survivable with the addition of systems such as the AVENGER and the Bradley STINGER Fighting Vehicle (BSFV), while others, namely Corps SAM and THAAD will increase protection against tactical ballistic missiles for maneuver forces and their bases.¹⁰⁴

Sustainment: Recently fielded systems have vastly improved the division's ability to sustain a forward detachment from dispersed bases. Its artillery would be accompanied by the field artillery support vehicle (FASV). Other supplies, particularly fuel, would be carried in heavy expanded mobility military trucks (HEMMTs), which will soon be augmented by the palletized load system (PLS). Army logisticians consider the PLS to be "ideal for the rapid-moving, non-linear battlefield." This truck-trailer system will greatly reduce the number of trucks required to supply a typical forward detachment. These trucks might be resupplied aurally or from hidden caches left behind during previous operations.¹⁰⁵ The caches could be located by using GPS and transceivers which monitor the location and status of each cache. Additionally, the PLS materiel handling capability will greatly speed the loading and unloading process.¹⁰⁶ Aerial resupply and medevac will rely on the battle-tested UH-60 Blackhawks and possibly CH-47D Chinooks. The efficiency of all of these systems will be optimized by automation, called the CSS control system (CSSCS), which will enable the division's logisticians to anticipate and execute real-time support.¹⁰⁷

Feasibility Conclusion: From the foregoing analysis, it is evident that the U. S. Army heavy division has the organic capabilities that are required to conduct forward detachment operations. Furthermore, its organization is flexible enough to permit the division to rapidly constitute from any of its ten maneuver

battalions, and properly support it. Therefore, incorporating the FDC into U. S. Army doctrine is feasible.

"Whatever doctrine the Armed Forces are working on now, they have got it wrong... Still it is the task of military science in an age of peace to prevent the doctrines from being too badly wrong."

- Michael Howard 108

CONCLUSION:

This monograph has shown that although the forward detachment concept was formalized by the Russians during the Soviet era, it is by no means proprietary to them. Throughout the history of the past 200 years, a number of nations have adapted this concept to achieve offensive success. Among these countries, our own is prominent in its practice of the FDC. Indeed, the historical record seems to indicate that this concept is a virtual prerequisite for rapid offensive success in modern warfare.

A review of the trends of modern and future warfare indicated that non-linear warfare is an increasingly likely condition to be found on battlefields. This led the Russo-Soviets to refine their forward detachment doctrine. For this reason this monograph took up the question of whether we ought to look closely at incorporating an American version of the FDC into our own doctrine. The subsequent analysis indicated that the concept provided answers to many of the challenges of non-linear warfare by exploiting a number of its opportunities. The analysis also found that the necessary mind-set to support the FDC, as reflected in the accepted doctrine of the U. S. Army, is present. Boldness and flexibility are indispensable when contemplating and executing deep tactical maneuver, and our evolving AirLand Battle doctrine is perfectly suited to this. Lastly, the analysis turned to the practicality of adopting the FDC. It determined that the current U. S. heavy division structure is, in fact, quite capable of launching forward detachments.

Furthermore, improvements in force structure and equipment indicate that U. S. forces are continuing to improve in precisely those areas which pose the greatest challenge to forward detachment operations.

As a result of this monograph's review of historical and current trends, and its analysis of the suitability, acceptability, and the feasibility of an American version of the FDC, only one conclusion is possible. The forward detachment concept should be incorporated into U. S. Army doctrine as a means of fully exploiting the potential of deep tactical maneuver.

ENDNOTES

1. Kenneth Koyen, The Fourth Armored Division from the Beach to Bavaria, (Munich, Germany: Herder-Druck, 1946), p. 13.
2. George S. Patton, Jr., War As I Knew It, (New York: Bantam, 1981), p. 129.
3. F. D. Sverdlov, Forward Detachments in Combat, (Moscow: 1986), p. 42. This is a 1987 Foreign Broadcast Information Service translation of the original Russian version. Colonel Sverdlov, doctor of historical sciences, is one of Russia's principal forward detachment theorists. His book extrapolates Great Patriotic War experiences of the Red Army to develop new doctrine for forward detachments under modern conditions.
4. David R. Jones, "Advanced Guard," The Military-Naval Encyclopedia of Russia and the Soviet Union, (Gulf Breeze, FL: Academic International Press, 1984), IV, 59. This article, which also discusses forward detachments, provides a comprehensive history of how these formations evolved over the past thousand years of Russian history.
5. Bruce W. Menning, Bayonets Before Bullets: The Imperial Russian Army, 1861-1914, (Indianapolis: Indiana University Press, 1992), pp. 58-60.
6. Jones, "Advanced Guard," p. 158.
7. David M. Glantz, "Spearhead of the Attack: The Role of the Forward Detachment in Tactical Maneuver," Journal of Soviet Military Studies, 1 (October 1988), 5. Colonel Glantz gives an excellent overview of the tactics, techniques, and procedures of modern Russo-Soviet forward detachments.
8. Charles B. MacDonald, A Time for Trumpets: The Untold Story of the Battle of the Bulge, (New York: Bantam, 1985), pp. 88-9.
9. Siegfried Westphal, The German Army in the West, (London: Cassel & Co., 1951), pp. 182-4.
10. Christopher R. Gabel, "The 4th Armored Division in the Encirclement of Nancy," (Combat Studies Institute, Ft. Leavenworth, KS: April 1986), p. 23. This brief study details an outstanding example of how a modern U. S. forward detachment was used in combat.
11. Ulysses S. Grant, Personal Memoirs of U. S. Grant, (New York: Da Capo, 1982), p. 398. The Russians, and their Soviet successors, closely studied American Civil War tactics, particularly the many large cavalry raids. These operations made a strong impression on them that directly influenced their development of the forward detachment concept.
12. Ibid., p. 412.
13. Ibid., p. 548.
14. Ryszard Konopka, "The Commitment of Forward Detachments to Battle," Prze Glad Wojsk La Dowych, (May 1982), pp. 2-3. The Soviets considered the development of forward detachments and operational maneuver groups classified

information in the early 1980's. Fortunately for the West, the rest of the Warsaw Pact, especially the Poles, did not agree. They published a great deal about these formations in open source literature until the mid-1980's when the Soviets discovered and sealed this "leak."

15. Combined Arms Command, "The Non-Linear Nature of Future War: A Soviet/Commonwealth View" (Foreign Military Studies Office Study, 4 March 1992), pp. 3-5.
16. Alvin and Heidi Toffler, War and Anti-War: Survival at the Dawn of the 21st Century, (New York: Little, Brown, and Co., 1993), pp. 201-2. This book was written in the aftermath of DESERT STORM. It applies Toffler's theories about information age technology to modern warfare. In discussing the proliferation of this technology, he quotes a U. S. Navy analyst who says, "I've never found anyone to respond to my challenge to name three technologies which are under the exclusive control of the U. S. military." Toffler believes that since the end of the Cold War, "we are seeing a rapid de-monopolization of all types of information."
17. James J. Schneider, "The Theory of the Empty Battlefield," Journal of the Royal United Services Institute for Defense Studies (JRUSI), (September 1987), 37. This paper explains the causes and effects of the increasing dispersion of forces on modern battlefields.
18. Richard Simpkin, Red Armour: An Examination of the Soviet Mobile Force Concept, (Oxford, England: Pergamon Press, Ltd., 1984), p. 89.
19. Glantz, p. 27.
20. Konopka, p. 7.
21. James F. Holcomb, "Soviet Forward Detachments: A Commander's Guide," International Defense Review, (May 1989), 553.
22. Arthur Wollam, "Soviet Maneuver Battalions as Forward Detachments and Advanced Guards," How They Fight, 1 (January-March 1988), 12-13.
23. William and Harriet Scott, "The Role of Forward Detachments in Soviet Operations," (Defense Intelligence Agency Study, July 1985), p. 10.
24. Sverdlov, p. 47.
25. Glantz, pp. 32-3.
26. Ibid., p. 33.
27. Ibid., p. 40.
28. Konopka, p. 6.
29. Glantz, p. 21.
30. Scott and Scott, pp. 7-8.

31. Stanislaw Koziej, "Operational and Tactical Raids," Mysl Wojskowa, (July-August 1990), p. 11.
32. "Forward Detachment," Voennyi Vestnik, (Feb 1983), p. 36.
33. Holcomb, pp. 553-4.
34. Wollam, p. 12.
35. Scott and Scott, p. 24.
36. U. S. Department of the Army, Operations, Field Manual 100-5, (Washington, D.C.: U. S. Government Printing Office, 1982), pp. 7-13-15.
37. -----, Operations, Field Manual 100-5, (Washington, D.C.: U. S. Government Printing Office, 1993), pp. 2-6-9.
38. Ibid., p. 6-14.
39. U. S. Department of the Army, Operations, Field Manual 100-5, (Washington, D.C.: U. S. Government Printing Office, 1986), p. 20.
40. -----, Corps Operations, Field Manual 100-15, (Washington, D.C.: U. S. Government Printing Office, September 1989), pp. 3-0-3.
41. -----, Division Operations, Field Manual 71-100, (Washington, D.C.: U.S. Government Printing Office, 1990), pp. 1-7-8.
42. Field Manual 100-5 (1993), p. 2-22.
43. Ibid., pp. 7-8-9.
44. Bruce Catton, The Army of the Potomac: Mr. Lincoln's Army, (New York: Doubleday & Co., 1962), p. 19.
45. Based on a suggestion by James J. Schneider, 8 November 1993.
46. Sverdlov, p. 52.
47. U. S. Department of the Army, Staff Officer's Field Manual Organizational, Technical, and Logistical Data, Field Manual 101-10-1/1, (Washington, D.C.: U.S. Government Printing Office, 1987), pp. 1-157-217.
48. -----, The Soviet Army: Operations and Tactics, Field Manual 100-2-1, (Washington, D.C.: U. S. Government Printing Office, 18 June 1990), p. 4-135.
49. George Jacques Danton, Speech to French Legislative Committee on General Defense, 2 September 1792.
50. Toffler, The Third Wave, (New York: Bantam), pp. 3-4.
51. -----, War and Anti-War, pp. 72-3.

52. Milan Vego, "Recce-Strike Complexes in Soviet Theory and Practice," (Combined Arms Command, Ft. Leavenworth, KS: 1991), pp. 2-3.
53. Toffler, The Third Wave, p. 10. The first wave was the agricultural revolution, the second was the industrial revolution, the third, and current wave, is the information revolution.
54. Anthony Kellett, Combat Motivation: The Behavior of Soldiers in Combat, (Boston: Kluwer, 1984), p. 219.
55. Kellett, p. 181.
56. James M. Castle, "The Flying Column: A Concept for Tactical Non Linear Sustainment," (School of Advanced Military Studies Monograph, 1991), pp. 21-2.
57. Kellett, p. 250. The author mentions the severe psychological strain that Japanese raids into British rear areas caused among the soldiers in the front lines in the Burma campaign.
58. Herman Hattaway and Archer Jones, How the North Won: A Military History of the Civil War, (Chicago: Illini Books, 1991), p. 509.
59. Glantz, p. 2.
60. L. D. Holder, "Maneuver in the Deep Battle," Military Review, (May 1982), 55. This article was the first to point out that the deep attack portion of then new AirLand Battle doctrine was missing a ground dimension.
61. Ibid., p. 56.
62. Holcomb, p. 553.
63. Frederick R. Kienle, "Reconnaissance Pull: Seeking the Path of Least Resistance," (School of Advanced Military Studies Monograph, 1991), p.4.
64. Holder, pp. 55-6.
65. Kienle, p. 4.
66. Castle, p. 26.
67. James R. McDonough, Lecture on Doctrine to SAMS Class, 9 September, 1993.
68. Toffler, War and Anti-War, p.52.
69. Field Manual 100-5, (1993), p. 2-9.
70. Field Manual 100-5, (1982), p. 2-2.
71. Field Manual 100-5, (1993), p. 2-6.
72. Sverdlov, p. 49.

73. Field Manual 100-5, (1982), p. 2-2.
74. Ibid., p. 2-4, and Field Manual 100-5, (1993), p. 2-10.
75. Sverdlov, p. 66. The author's solution to the heavy psychological demands placed upon the officers and men in forward detachments was thorough political indoctrination. Although his remedy was of dubious value at best, clearly some sort of mental preparation is advisable before troops strike out on independent mission deep in the enemy rear.
76. Field Manual 100-5, (1982), p. 2-2.
77. Sverdlov, pp. 50-1.
78. Field Manual 100-5, (1993), p. 2-8-9.
79. Sverdlov, p. 51
80. Glantz, p. 30.
81. Scott and Scott, p. 22. Colonel A. A. Sidorenko said in The Offensive, (1970), that "each motorized rifle or tank battalion can, by virtue of its weapons and technical outfitting, operate as a forward detachment and must be constantly ready for this."
82. Field Manual 100-5, (1993), p. 2-9.
83. Simpkin, Deep Battle: The Brainchild of Marshal Tukhachevskii, (London: Brassey's, 1987), p. 53-5. He explains that "maneuver theory adds a third dimension to the attritional concept (of mass and time) by basing itself on momentum." This dimension is critical because "the combat worth of the mobile force derives from its momentum."
84. Field Manual 100-5, (1982), p. 2-4.
85. Field Manual 100-5, (1993), p. 2-10.
86. Robert W. Mixon, "Taking the Ultimate Risk: Commanding and Controlling Maneuver Forces in Tactical Deep Operations," (School of Advanced Military Studies Monograph, 1986), p. 7.
87. Ibid., p. 13.
88. Ibid., p. 8.
89. Glantz, pp. 42-3.
90. Kellett, p. 271. The complete list of stress inducing factors found in combat includes: threats to life, limb, and health; physical discomfort, deprivation of sexual and concomitant social satisfactions; isolation from accustomed sources of affectional assurance; loss of comrades; the sight of wounded and dying men; restriction of personal movement by enemy fire; continual uncertainty and lack of adequate cognitive orientation. Kellett cites the source of this list as S. A. Stouffer's 1949 study, Studies in Social Psychology in World War II, Vol 2, The

American Soldier: Combat and Its Aftermath, published by Princeton University Press. When considering forward detachment operations, it becomes evident that virtually every one of these stresses is aggravated by the routine circumstances a forward detachment encounters in the course of executing its mission.

91. Calvin F. H. Pilgrim and Michael J. Fehn, "CSS for AirLand Operations," Army Logistician, (March-April 1992), 2.
92. Field Manual 101-10-1/1, pp. 1-1-2.
93. Edward J. Stiles, "AFATDS-Its Not a New TACFIRE," Field Artillery, (February 1992), p. 40.
94. Wilson Schoffner, "Fire Support: Simple, Adaptable Plans," Field Artillery, (February 1992), 8.
95. John A. Sorrell, "Fire Support Systems:-Thor's Hammers," Field Artillery, (December 1992), 20-2.
96. Mark Tapscott, "CECOM: Ensuring a Battlefield Edge Through Advanced Technologies," Defense Electronics, 24 (June 1992), 44-6.
97. Timothy Garth, "The Future is Now, Armor, (March-April 1992), 26-7.
98. Tapscott, pp. 41-2.
99. Stephen MacWillie and James M. Delashaw, "Armed Reconnaissance Efficiency," Army Aviation, (31 January 1992), 23.
100. Paul E. Menoher, Jr., "Vantage Point," Military Intelligence, 18 (January-March 1992), 42.
101. John W. Foss, "Engineer 2000," Engineer, 21 (April 1991), 6.
102. Joseph M. Seerly, "Force Structure and AirLand Battle-Future," Engineer, 21 (April 1991), 40.
103. Ibid., p. 7.
104. John H. Little, "Reshaping the Branch," ADA Yearbook '92, (October 92), 16-21.
105. William G. T. Tuttle, "Sustaining Army Combat Forces-Building Anticipation into a Vision for the Future," Army Logistician, (September-October 1991), 10.
106. Ibid., p. 9.
107. Pilgrim and Fehn, p. 6.
108. Michael Howard, "Military Science in an Age of Peace," Chesney Memorial Gold Medal Lecture given 3 Oct 1973.

BIBLIOGRAPHY

Books:

Catton, Bruce. The Army of the Potomac: Mr. Lincoln's Army. New York: Doubleday & Co., 1962.

Grant, Ulysses S. Personal Memoirs of U.S. Grant. New York: Da Capo, 1982.

Hattaway, Herman and Archer Jones. How the North Won: A Military History of the Civil War. Chicago: Illini Books, 1991.

Kellett, Anthony. Combat Motivation: The Behavior of Soldiers in Combat. Boston: Kluwer, 1984.

Koyen, Kenneth. The Fourth Armored Division from the Beach to Bavaria. Munich, Germany: Herder-Druck, 1946.

MacDonald, Charles B. A Time for Trumpets: The Untold Story of the Battle of the Bulge. New York: Bantam, 1985.

Menning, Bruce W. Bayonets Before Bullets: The Imperial Russian Army, 1861-1914. Indianapolis: Indiana University Press, 1992.

Patton, George S. Jr., War As I Knew It. New York: Bantam, 1981.

Simpkin, Richard, E. Deep Battle: The Brainchild of Marshal Tukhachevskii. New York: Brassey's, 1987.

-----, Red Armour: An Examination of the Soviet Mobile Force Concept. Oxford, England: Pergamon Press, Ltd., 1984.

Sverdlov, F. D. Forward Detachments in Combat. Moscow: Voenizdat, 1986.

Toffler, Alvin. The Third Wave. New York: Bantam, 1981.

-----, War and Anti-War: Survival at the Dawn of the 21st Century. New York: Little, Brown, and Co., 1993.

Westphal, Siegfried. German Army in the West. London: Cassell, 1952.

U. S. Government Publications:

Gabel, Christopher R. "The 4th Armored Division in the Encirclement of Nancy." Combat Studies Institute, Ft. Leavenworth, KS: April 1986.

U.S. Army. Field Manual 71-100. Division Operations. Washington, DC: U.S. Government Printing Office, 1990.

-----, Field Manual 100-2-1. The Soviet Army: Operations and Tactics. Washington, DC: U.S. Government Printing Office, 1991.

-----, Field Manual 100-5. Operations. Washington, DC: U.S. Government Printing Office, 1982.

----- . Field Manual 100-5. Operations. Washington, DC: U.S. Government Printing Office, 1986.

----- . Field Manual 100-5. Operations. Washington, DC: U.S. Government Printing Office, 1993.

----- . Field Manual 100-15. Corps Operations. Washington, DC: U.S. Government Printing Office, 1989.

----- . Field Manual 101-10-1/1. Staff Officer's Field Manual Organizational, Technical, and Logistical Data. Washington, D.C.: U.S. Government Printing Office, 1987.

Articles and Publications:

"Forward Detachment." Voennyi Vestnik, (February 1983), 36.

Foss, John W. "Engineer 2000." Engineer, 21 (April 1991), 4-8.

Garth, Timothy. "The Future is Now, Armor, (March-April 1992), 26-8.

Gladkov, N. "The Forward Detachments are Conducting the Battles." Voyenno-Istorecheskiy Zhurnal, (November 1984), 61-8.

Glantz, David M. "Spearhead of the Attack: The Role of the Forward Detachment in Tactical Maneuver." Journal of Soviet Military Studies, 1 (October 1988), 1-79.

Holcomb, James F. "Soviet Forward Detachments: A Commander's Guide." International Defense Review, May 1989, 551-5.

Holder, L.D. "Maneuver in the Deep Battle." Military Review, (May 1982), 54-61.

Jones, David R. "Advanced Guard." The Military-Naval Encyclopedia of Russia and the Soviet Union, 1984, IV, 54-186.

Konopka, Ryszard. "The Commitment of Forward Detachments to Battle." Prze Glad Wojsk La Dowych, (May 1982), 21.

Koziej, Stanislaw. "Operational and Tactical Raids." Mysl Wojskowa, (July-August 1990), 17-26.

Little, John H. "Reshaping the Branch." ADA Yearbook '92, (October 92), 13-22.

MacWillie, Stephen and James M. Delashaw. "Armed Reconnaissance Efficiency." Army Aviation, (31 January 1992), 23-7.

Menoher, Paul E., Jr. "Vantage Point." Military Intelligence, 18 (January-March 1992), 42.

Pilgrim, Calvin F. H. and Michael J. Fehn. "CSS for AirLand Operations." Army Logistician, (March-April 1992), 2-7.

Schoffner, Wilson. "Fire Support: Simple, Adaptable Plans." Field Artillery, (February 1992), 7-10.

Schneider, James J. "The Theory of the Empty Battlefield." Journal of the Royal United Services Institute for Defense Studies (JRUSI), (September 1987), 37-44.

Joseph M. Seerly. "Force Structure and AirLand Battle-Future," Engineer, 21 (April 1991), 38-44.

Sorrell, John A. "Fire Support Systems-Thor's Hammers." Field Artillery, (December 1992), 42-3.

Stiles, Edward J. "AFATDS-Its Not a New TACFIRE." Field Artillery, (February 1992), 39-41.

Tapscott, Mark. "CECOM: Ensuring a Battlefield Edge Through Advanced Technologies." Defense Electronics, 24 (June 1992), 33-46.

Tuttle, William G. T. "Sustaining Army Combat Forces-Building Anticipation into a Vision for the Future." Army Logistician, (September-October 1991), 6-11.

Wollam, Arthur. "Soviet Maneuver Battalions as Forward Detachments and Advanced Guards." How They Fight, (January-March 1988), 11-15.

Unpublished Papers:

Castle, James M. "The Flying Column: A Concept for Nonlinear Sustainment." School of Advanced Military Studies Monograph, 1990.

Kienle, Frederick R. "Reconnaissance Pull: Seeking the Path of Least Resistance." School of Advanced Military Studies Monograph, 1990.

Mixon, MAJ Robert W. "Taking the Ultimate Risk: Commanding and Controlling Maneuver Forces in Tactical Deep Operations." School of Advanced Military Studies Monograph, 1986.

Scott, Willam F. and Harriet F. "The Role of Forward Detachments in Soviet Offensive Operations." Defense Intelligence Agency Study, July 1985.

U.S. Army Combined Arms Command. "The Non-Linear Nature of Future War: A Soviet/Commonwealth View." Foreign Military Studies Office Report, March 1992.

Vego, Milan. "Recce-Strike Complexes in Soviet Theory and Practice." Combined Arms Command Study, June 1990.

Speeches:

Danton, George Jacques. Speech to French Legislative Committee on General Defense, 2 September 1792.

Howard, Michael. "Military Science in an Age of Peace," Chesney Memorial Gold Medal Lecture, 3 Oct 1973.

McDonough, James R. Lecture on Doctrine to School of Advanced Military Studies Class, Ft. Leavenworth, KS, 9 September, 1993.